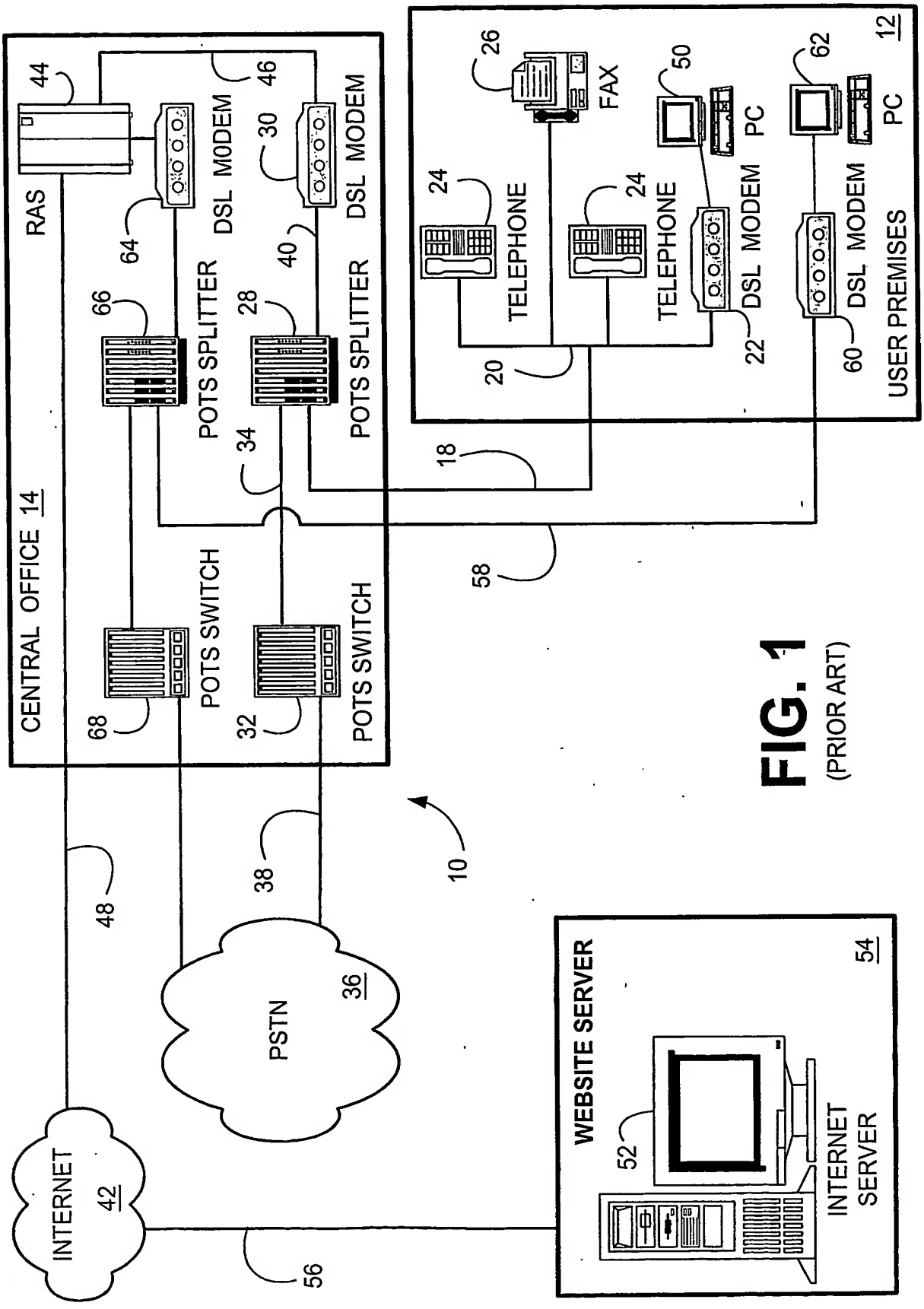


FIG. 1
(PRIOR ART)

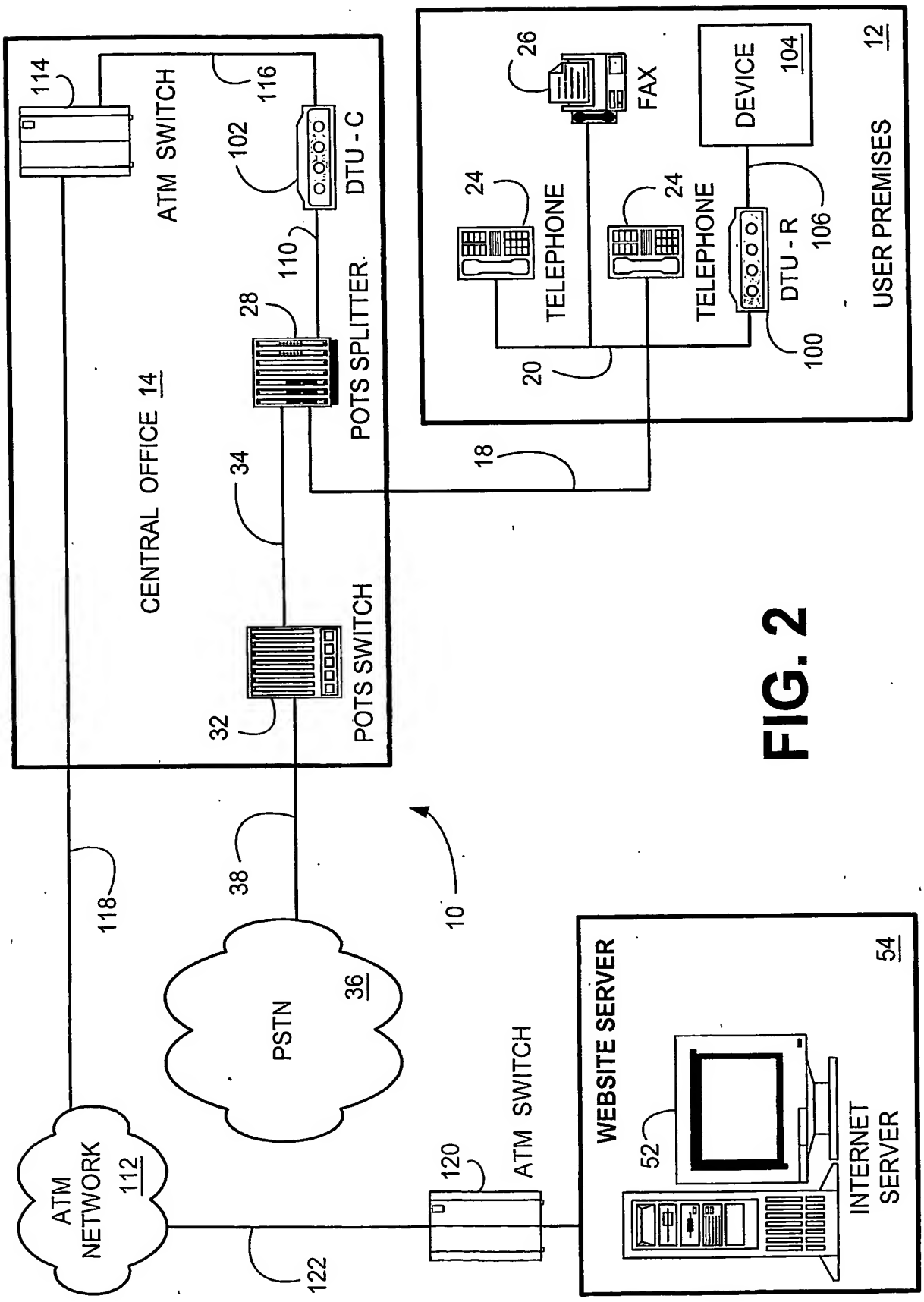

CENTRAL OFFICE 14
ATM SWITCH
114
116
102
DTU - C
110
28
POTS SPLITTER
34
32
POTS SWITCH
118
38
PSTN
36
ATM NETWORK 112
122
120
ATM SWITCH
10
WEBSITE SERVER
52
INTERNET SERVER
54
USER PREMISES 12
26
FAX
DEVICE 104
24
TELEPHONE
24
TELEPHONE
DTU - R 106
100
20
18

FIG. 2

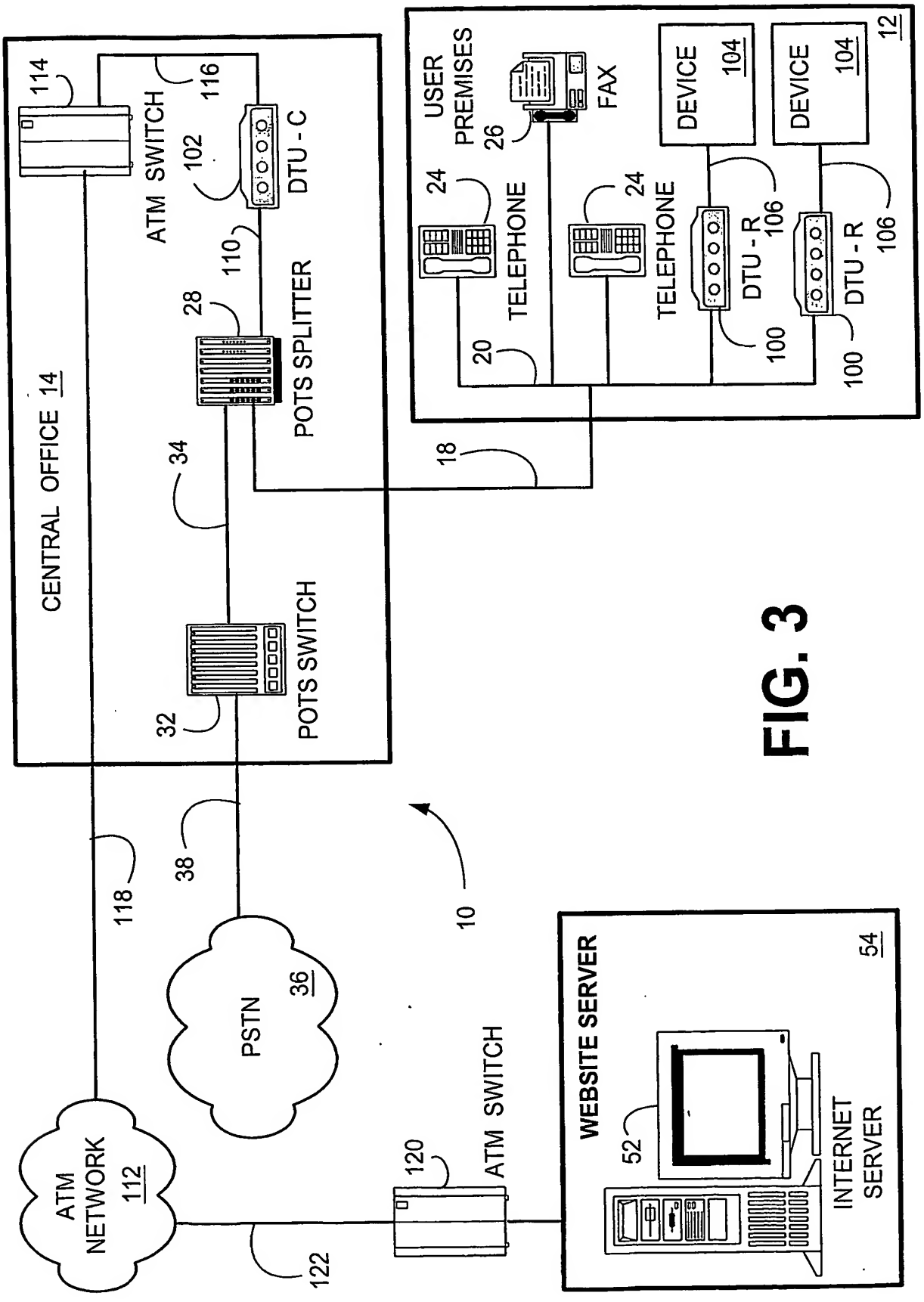

CENTRAL OFFICE 14
114
ATM SWITCH
116
102
DTU - C
110
28
POTS SPLITTER
34
POTS SWITCH
32
118
38
PSTN
36
ATM NETWORK 112
120
ATM SWITCH
122
10
18
USER PREMISES
26
FAX
24
TELEPHONE
20
24
TELEPHONE
DEVICE 104
DEVICE 104
DTU - R 106
DTU - R 106
100
100
12
WEBSITE SERVER
52
INTERNET SERVER
54

FIG. 3

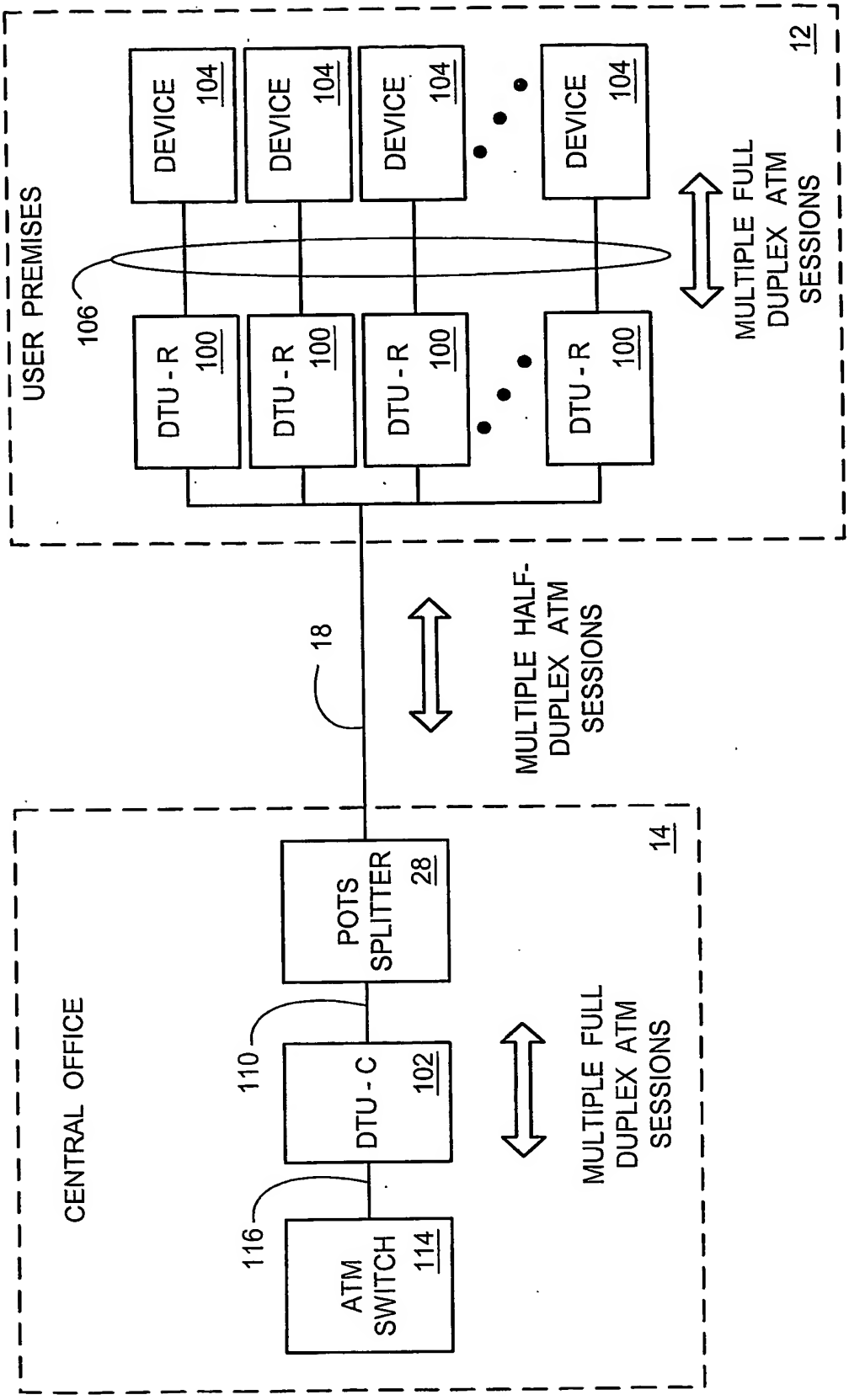

USER PREMISES
12
DEVICE 104
DEVICE 104
DEVICE 104
DEVICE 104
106
DTU-R 100
DTU-R 100
DTU-R 100
DTU-R 100
MULTIPLE FULL DUPLEX ATM SESSIONS
18
MULTIPLE HALF-DUPLEX ATM SESSIONS
CENTRAL OFFICE
14
POTS SPLITTER 28
110
DTU-C 102
116
ATM SWITCH 114
MULTIPLE FULL DUPLEX ATM SESSIONS

FIG. 4

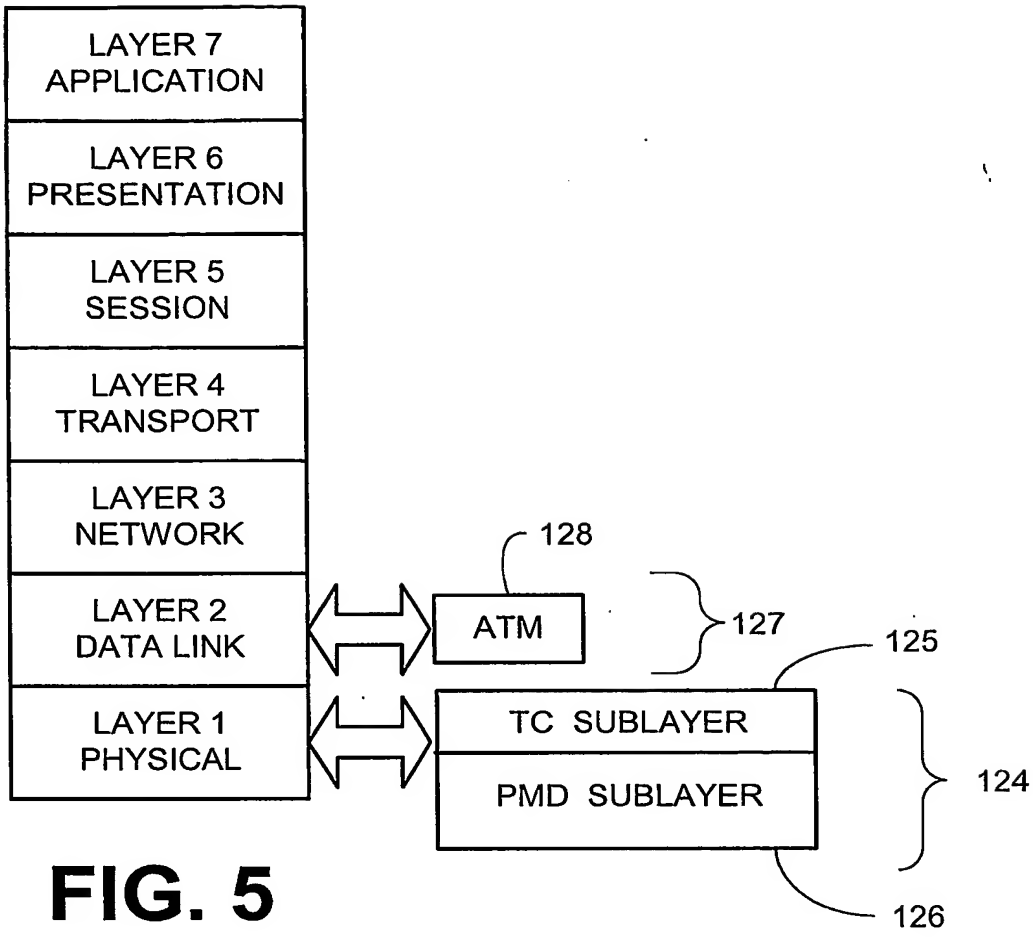
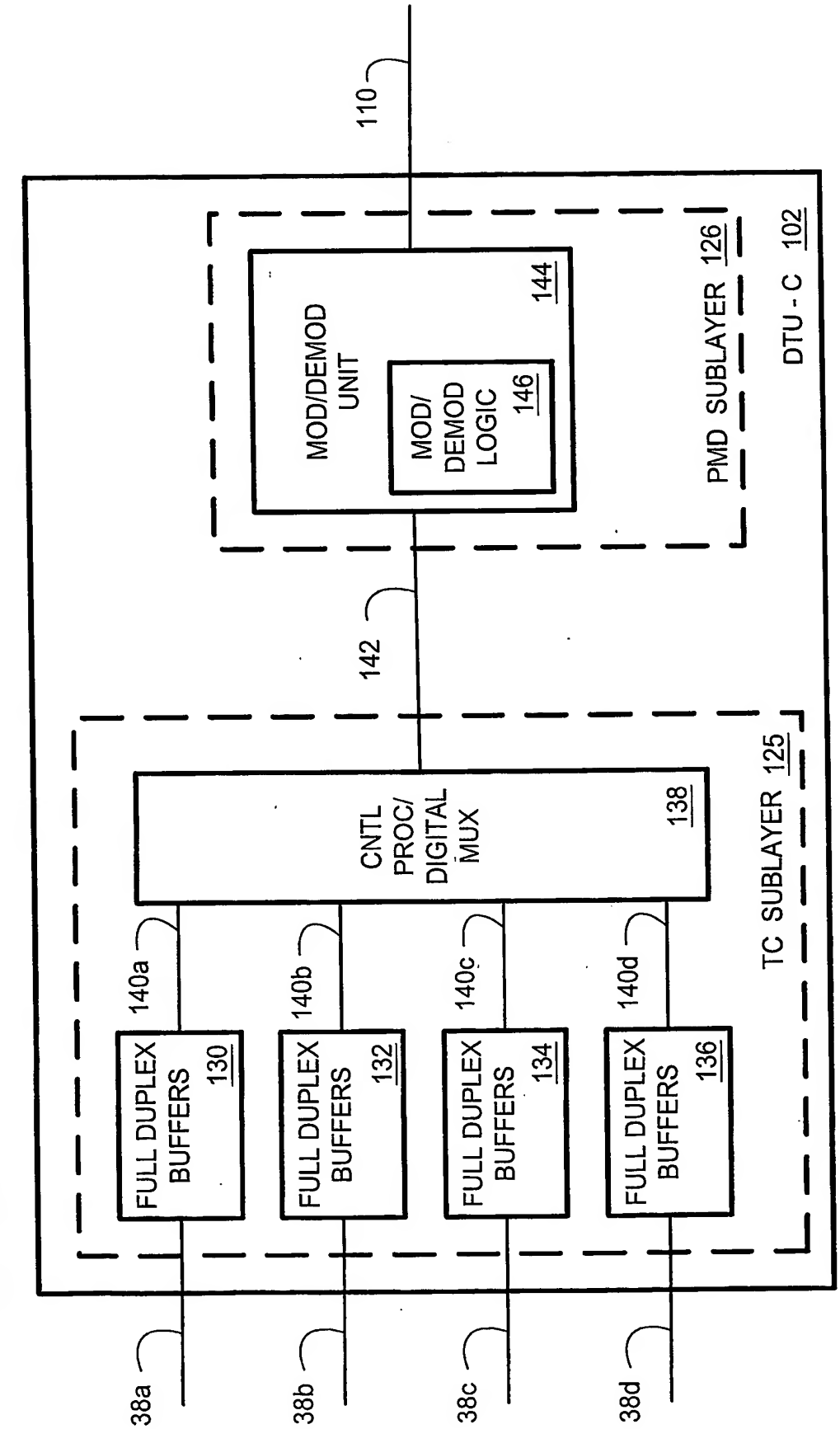

LAYER 7
APPLICATION
LAYER 6
PRESENTATION
LAYER 5
SESSION
LAYER 4
TRANSPORT
LAYER 3
NETWORK
LAYER 2
DATA LINK
LAYER 1
PHYSICAL
128
ATM
127
125
TC SUBLAYER
PMD SUBLAYER
124
126

FIG. 5

FIG. 6A


110
DTU - C 102
PMD SUBLAYER 126
MOD/DEMOD UNIT
144
MOD/ DEMOD LOGIC 146
142
TC SUBLAYER 125
CNTL PROC/ DIGITAL MUX
138
140a
140b
140c
140d
FULL DUPLEX BUFFERS 130
FULL DUPLEX BUFFERS 132
FULL DUPLEX BUFFERS 134
FULL DUPLEX BUFFERS 136
38a
38b
38c
38d

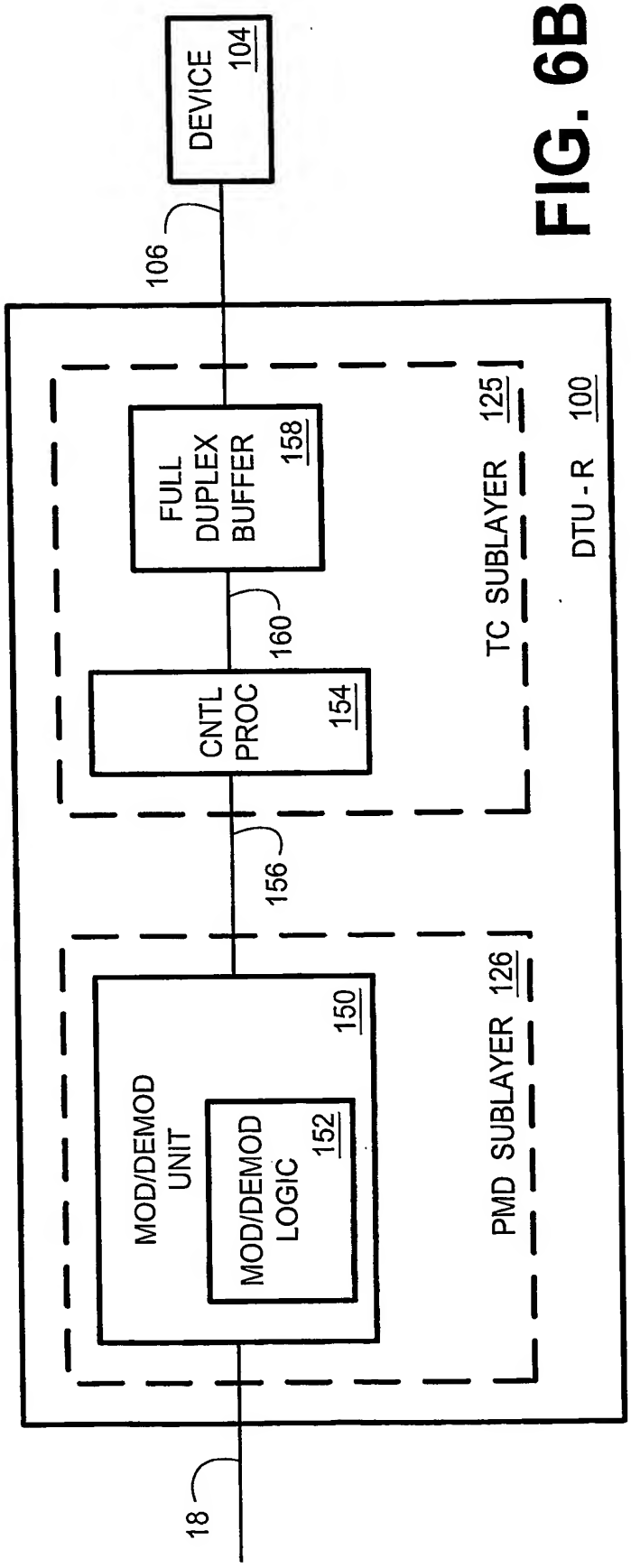

DEVICE
104
106
FULL DUPLEX BUFFER
158
160
CNTL PROC
154
156
MOD/DEMOD UNIT
150
MOD/DEMOD LOGIC
152
18
TC SUBLAYER
125
PMD SUBLAYER
126
DTU - R
100

FIG. 6B

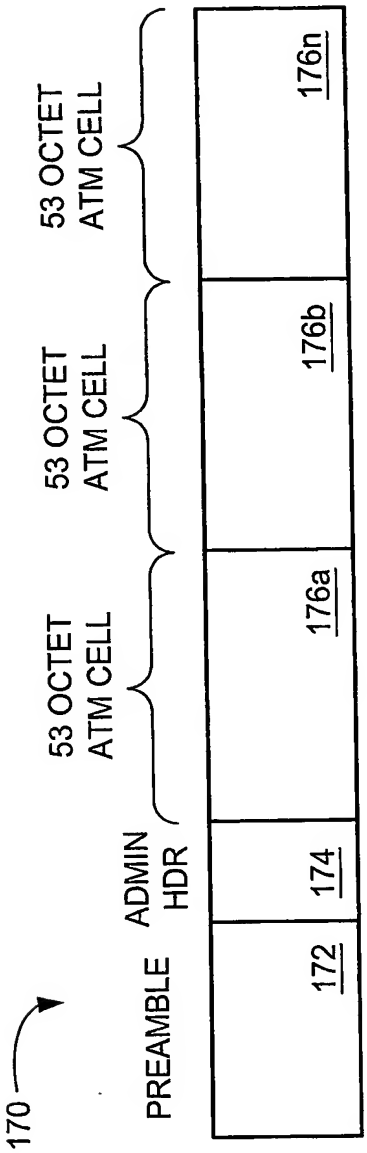

170
PREAMBLE
172
ADMIN HDR
174
53 OCTET ATM CELL
176a
53 OCTET ATM CELL
176b
53 OCTET ATM CELL
176n

FIG. 7

FIG. 8A

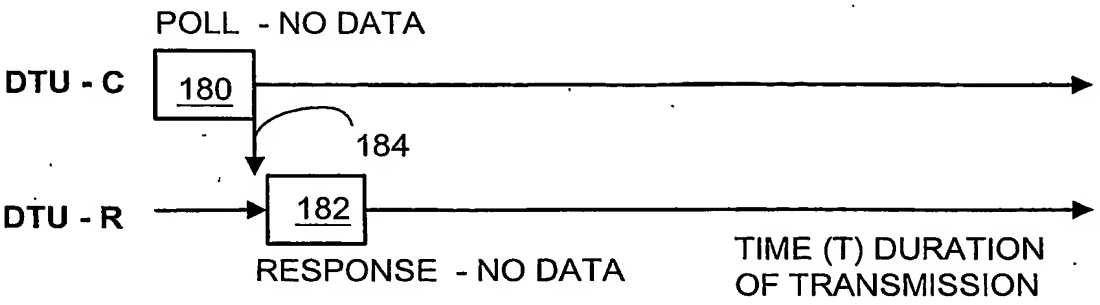


FIG. 8B

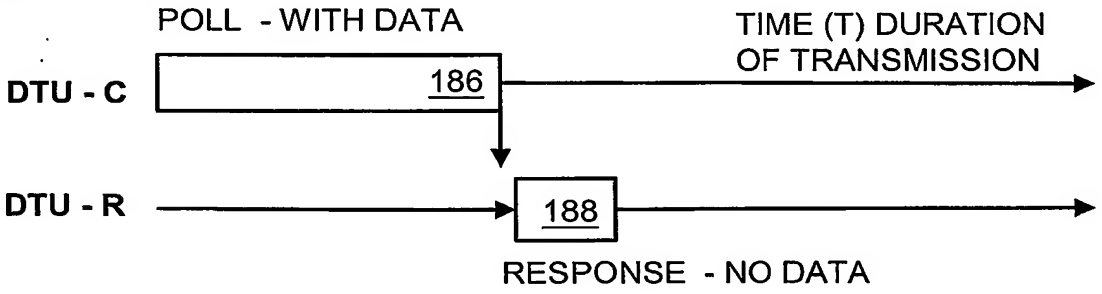


FIG. 8C

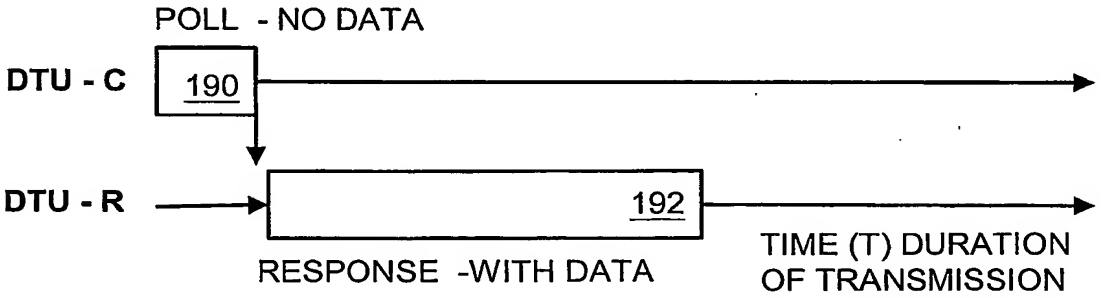
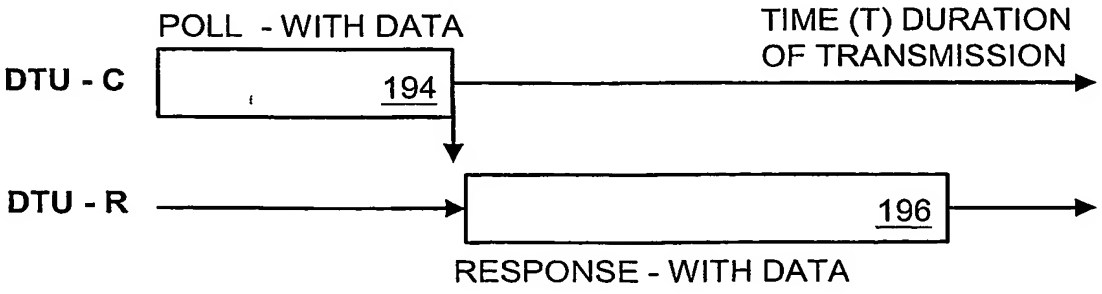


FIG. 8D



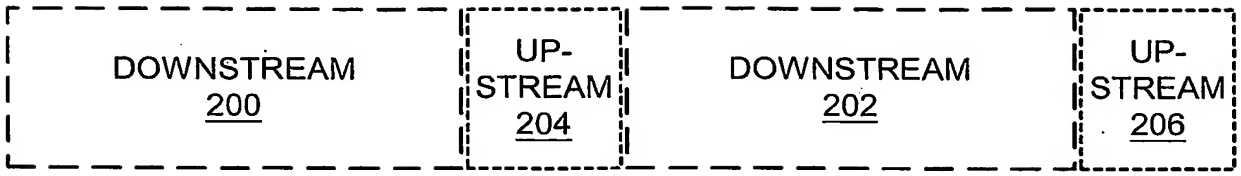


FIG. 9A

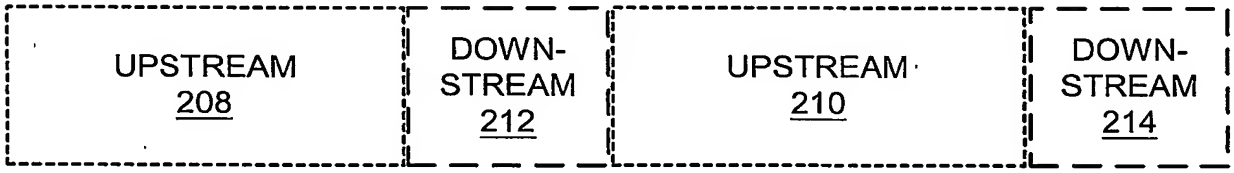


FIG. 9B

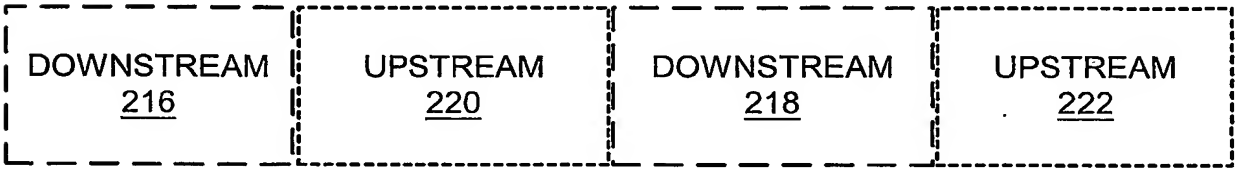


FIG. 9C

FIG. 9D